

## Abstract of the Invention

A method for registering the actual description MI of an object under measurement with a nominal description MS of the object under measurement in which the actual description MI describes the actual geometric dimensions, the actual position and the actual orientation of the object under measurement and in which defined geometric dimensions, a defined position and a defined orientation are described via the nominal description MS for the object under measurement. The elements of the actual description MI are measured and the elements of the nominal description MS are predefined, for example, in the form of a CAD description. According to the present invention, a transformation T for aligning the object under measurement according to its nominal description is determined in an iterative method. To this end, selected values are defined for MI and MS, which corresponds to an extraction of features from the measured data and the CAD description. Then, corresponding elements from MI and MS are either established or determined by determining the target values for the selected values. The target values extend in each case the other set.